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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Charles L. Turnbough

Serial No.:

09/229,751

Filed

January 14, 1999

For: PEPTIDE LIGANDS THAT BIND TO SURFACES OF BACTERIAL SPORES

## Response to Restriction Requirement

Honorable Commissioner of Patents and Trademarks Washington, D.C. 20231

Sir:

This is a Response to the Office Action mailed November 30, 2001. Applicant hereby elects the tagged peptides which bind to <u>B. anthracis</u>, specifically claiming the general sequence TYPXPXR wherein X may be chosen from Ile, Val or Leu. or a peptide of the formula TSQNVRT, with traverse. Please amend the claims in the following manner:

- 21. A composition comprising a tagged peptide ligand of 5-12 mers known to bind to spores from a particular species of bacteria selected from <u>B. subtilis</u>, <u>B. anthracis</u>, and <u>B. cereus</u> and a sample suspected of containing spores which will bind to said peptide ligand.
- 22. The composition of claim 21 containing a tagged peptide ligand

which binds with specificity to the surface of a [bacterial]

B. anthracis spore, said ligand being bound to a solid support.

Please add the following claim:

- 23. The composition of claim 21 wherein the tagged peptide of 5-12 mers binds to a <u>B. anthracis</u> spore, said peptide containing either the sequence Thr-Ser-Gln-Asn-Val-Arg-Thr (TSQNVRT) (Seq. ID No. 40) or a sequence of the general formula Thr-Tyr-Pro-X-Pro-X-Arg (TYPXPXR), wherein X is Ile, Val or Leu.
- 24. The composition of claim 23 wherein the tagged peptide of 5-12 mers contains the sequence Thr-Ser-Gln-Asn-Val-Arg-Thr (TSQNVRT) (Seq. ID No. 40).
- 25. The composition of claim 23 wherein the tagged peptide of 5-12 mers contains at least one sequence chosen from among Thr-Tyr-Pro-Ile-Pro-Ile-Arg (TYPIPIR) (Seq. ID No. 41), Thr-Tyr-Pro-Ile-Pro-Phe-Arg (TYPIPFR) (Seq. ID No. 42), and Thr-Tyr-Pro-Val-Pro-His-Arg (TYPVPHR) (Seq. ID No. 43).
- 29. The composition of claim 23 wherein the peptide ligand is in a liquid medium.

## Election

Applicant hereby elects the invention of claim 22, relating to

the <u>B. anthracis</u> organism and as a species of peptide, the peptide of claim 24. However, it is believed, in view of the art and its application that at least the peptides which bind to the <u>B. anthracis</u> should not present an undue burden for the examiner. Furthermore, the discovery is broad, in that such economical and simple means of identifying spore-forming organisms by identification of the presence of spores using very small peptides was completely unknown. In fact, the method apparently being used at the present in Washington is a much more complex enzyme means. Hence, it is believed the restriction to only one peptide would place on the applicant the burden of filing a very large number of applications simply to have any meaningful coverage.

Respectfully submitted,

Glenna Hendricks, Reg. No. 32,535